## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018741

Address: 333 Burma Road **Date Inspected:** 20-Dec-2010

City: Oakland, CA 94607

34-0006

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr.Zhu Zhong Hai. No **Inspected CWI report:** Yes No N/A **Rod Oven in Use:** Yes No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

**Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**NDT** 

**Bridge No:** 

#### **OBG TRAL ASSEMBLY**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Box assembly. The weld designations reviewed are as follows.

OBE11-013, 015

OBE11A-013, 015

NDT Notification No-07854

This QA Inspector observed the following work in progress:

**OBG TRIAL ASSEMBLY** 

OBG Segment 12AE~12BE

This QA Inspector observed ZPMC qualified welding personnel identified as 044515 Perform Shielded Metal Arc

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Welding (SMAW) on OBG segment 12AE to 12 BE Side plate to Side plate Joint Cross beam side. Joint identified as OBE12D-002. ZPMC QC Identified as Liu Hua Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1.

#### OBG Segment 12AE~12BE

This QA Inspector observed ZPMC qualified welding personnel identified as 040320 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12AE to 12 BE Bottom plate to Bottom plate Joint. Joint identified as OBE12B-001. ZPMC QC Identified as Liu Hua Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1.

## **OBG Segment 12AW**

This QA Inspector observed ZPMC qualified welding personnel identified as 040609 Perform Flux Core Arc Welding (FCAW) on OBG segment 12AW Longitudinal Diaphragm to Bottom plate joint cross beam side. Joint identified as SEG3004V-051. ZPMC QC Identified as Shi Lei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

#### OBG Segment 12AE~12BE

This QA Inspector observed ZPMC qualified welding personnel identified as 052763 Perform Flux Core Arc Welding (FCAW) on OBG segment 12AE~12BE Longitudinal Diaphragm to Bottom plate joint Bike path side. Joint identified as SEG3001X-051. ZPMC QC Identified as Liu Hua Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

#### OBG Segment 12AW ~12BW

This QA Inspector observed ZPMC qualified welding personnel identified as 046709 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12AW +12BW Side plate to Side plate joint Cross beam side. Joint identified as OBW12D-003. ZPMC CWI Identified as Zhu Zhong Hai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1. For more information see below attached picture number 1.

#### OBG Segment 12AW ~12BW

This QA Inspector observed ZPMC qualified welding personnel identified as 040656, 040611 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12AW +12BW Side plate to Side plate joint Cross beam side. Joint identified as OBW12D-002. ZPMC CWI Identified as Zhu Zhong Hai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1.

#### **OBG Segment 12BW**

This QA Inspector observed ZPMC qualified welding personnel identified as 046704 Perform Shielded Metal Arc Welding (SMAW) on OBG segment 12BW Longitudinal Diaphragm to Bottom plate joint. Joint identified as SEG3005M-090. ZPMC QC Identified as Shi Lei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U4b-FCM-1. For more information see below attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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# **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone :150-0042-2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer